

Minutes 12/26/05 Team1720 Programmers Workshop
AT Building, Rm. 214, 3-7pm

Programmers present: Ashley, Nathan, Mike, Cheryl.

Created a function that compares speed (not measured, at this point, but a variable set to simulate actual) to the joystick position. If different a very small step is made toward the joystick target value. Because the loop is only 1/40th of a second the function only incremented every 6th loop. This created a change in speed that ramped toward the target at a rate that could easily be seen. However, the function got stuck at a certain point and continued to put out the same value, regardless of the joystick. It seemed to work in one direction but not the other. The debugger will need to be used to find the cause of the problem.

Nathan mounted the encoder geared to the right drive gearbox. He also mounted the gyro.

Builders also worked on the workbench: Mark, Nathan, Alex,

Minutes 12/28/05 Team1720 Programmers Workshop
AT Building, Rm. 144, 3-7pm

Present: Nathan, Mike, Cheryl.

Made changes in the code to read the speed from the encoder.

Initialize Encoder, in User Initialization

Add Encoder.C with reset and read fuctions.

Added Get_Speed(wheel) to desens()

Get_Speed reads the Tick count from the encoder and calculates the speed in joystick equivalent (0-254) values.

Nathan calculated distance traveled per encoder tick (.4"), encoder ticks per second when moving 8 ft per second (260), and a formula to calculate actual speed based on the number of ticks per program loop based on 32 ticks per encoder revolution and the gear ratio between the encoder pick up and wheel drive.

Although the build succeeded, the hex file would not completely download leaving the programming light flashing orange. Research on ChiefDelphi points to the serial to USB download link. Next step: try to download the hex file provided by the NASA programmer Kevin.

Builders worked on the work bench: Mark, Brad, Alex, Ale, Nathan. Ale also worked on assembling drill motor gear boxes

Next meetings Friday, 12/30, Rm 144, 5-7 and
Monday, 1/2/06 2-6pm.